Amendments to the Claims

1. (Previously presented) A computerized method for detecting deviations in a data table comprising a plurality of records and a plurality of columns, said method comprising the steps of:

    (1)   selecting a column as a classification column;

    (2)   executing a classification method for calculating a classification tree with respect to said classification column, whereby each edge of said classification tree is associated with a predicate, whereby a leaf node of said classification tree is associated with a leaf record set comprising a subset of said records for which a class predicate comprising all predicates along a path from a root node of said classification tree to said leaf node evaluates to TRUE, and whereby said leaf node is associated with a leaf label representing an expected value in said classification column of said leaf record set; and

    (3)   determining from said leaf record set all records deviating with respect to said classification column from said leaf label as a deviation set.

2. (Original) The method of claim 1 wherein said deviation set is associated with said class predicate in said determining step as an explanation for being detected as a deviation.

3. (Previously presented) The method of claim 1 wherein a plurality of leaf nodes are calculated in said executing step and wherein said determining step is executed for each of said plurality of leaf nodes.

4. (Previously presented) The method of claim 3 wherein for each leaf node a purity value is determined, said purity value measuring a degree of conformity of an associated leaf record set with respect to said leaf label of said leaf node.

5.   (Previously presented) The method of claim 4 wherein said purity value is based on a percentage of a number of records of said leaf record set not coinciding with said leaf label.

6.   (Original) The method of claim 4 wherein leaf nodes and their associated leaf record set with a purity value indicating a conformity below a predefined first purity threshold are disregarded.

7.   (Original) The method of claim 6 wherein leaf nodes and their associated leaf record set with purity values indicating a conformity above a predefined second purity threshold are also disregarded.

8.   (Original) The method of claim 7 wherein said purity thresholds have values between 80% and 100%.

9.   (Original) The method of claim 1 wherein in said executing step said classification tree is limited to a depth not exceeding a predefined depth threshold.

10.   (Original) The method of claim 9 wherein said depth threshold is a number not exceeding 3.

11.   (Original) The method of claim 1 wherein said method is iterated by repeatedly executing said method for another column of said data table as a classification column.

12.   (Original) The method of claim 1 wherein for each leaf node and its corresponding deviation set a ranking value is determined and wherein said deviation sets are ordered in a sequence according to their ranking values.

13.   (Currently amended) The method of claim 12 wherein said ranking value is determined based on the-a purity in-value of a leaf node.

14.   (Currently amended) The method of claim 12 wherein said ranking value is determined based on the-a number of records associated with a leaf node.

15.   (Currently amended) The method of claim 12 wherein said ranking value is determined based on the-a length of the class predicate of a leaf node.

16.   (Original) The method of claim 12, wherein for each pair of first and second deviation sets with a non-empty intersection set, said intersection set is treated as a third deviation set with a ranking value higher than a ranking value of said first and second deviation sets and said third deviation set is associated with a class predicate comprising the combination of the class predicates of said first and second deviation sets.

17.   (Original) The method of claim 1 wherein, if said data table has been modified after said method has been executed in a first run, the following further steps are performed:

executing said method in a second run with respect to the modified data table;

determining said deviation set of said modified data table; and

reducing said deviation set by said deviation set of said first run.

18.   (Previously presented) A computer system for detecting deviations in a data table comprising a plurality of records and a plurality of columns, said system comprising means for carrying out the steps of the method of claim 1.

19.   (Original) A data processing program for execution in a data processing system comprising software code portions for performing the method of claim 1 when said program is run on a computer.

20.   (Previously presented) A computer program product stored on a computer usable medium, comprising computer readable program means for causing a computer to perform the method of claim 1 when said program is run on said computer.